What is claimed is:

1. A method of generating a predetermined field of cavitation around a remote target in an underwater environment, said method comprising the steps of:

identifying a remote target in an unconfined underwater location;

generating at least two acoustic beams from an underwater acoustic source; and

- controlling said at least two generated acoustic beams to intersect with each other at said identified remote target location and whereby a cavitation field is created at said intersection.
- 2. The method according to claim 1 wherein said remote target location is in the range of 100m to 1 km from the acoustic source.
- 3. The method according to claim 1 wherein said remote target location is at least 100m from the acoustic source.
- 4. The method according to claim 1 wherein said remote target location is no more than 1 km from the acoustic source.

- 5. The method according to claim 1 wherein said acoustic beams are generated in a range frequency of from 10KHz to 15KHz.
- 6. The method according to claim 1 wherein said acoustic source is located onboard an underwater support vessel.
- 7. The method according to claim 1 wherein three acoustic beams are generated.
- 8. The method according to claim 1 wherein said at least two generated beams are generated to maximize cavitation at said identified remote target location.
- 9. A method of generating a predetermined field of destructive cavitation around a remote target in an underwater environment, said method comprising the steps of:

identifying a remote target location;

- generating an array of intersecting acoustic beamforms,
 each beamform producing a beam at peak power output,
 from an acoustic source; and
- controlling said array of intersecting beamforms to intersect at said identified remote target location

and thereby creating the field of destructive cavitation at said intersection.

- 10. The method according to claim 9 wherein said remote target location is in the range of 100m to 1 km from the acoustic source.
- 11. The method according to claim 9 wherein said remote target location is at least 100m from the acoustic source.
- 12. The method according to claim 9 wherein said remote target location is no more than 1 km from the acoustic source.
- 13. The method according to claim 9 wherein said acoustic beamform is generated in a frequency range of from 10KHz to 15KHz.
- 14. The method according to claim 9 wherein said acoustic source is located onboard an underwater support vessel.
- 15. The method according to claim 9 wherein said array includes at least two acoustic beamforms.
- 16. A method of generating a predetermined field of destructive cavitation around a remote target in an underwater environment, said method comprising the steps of:

identifying a remote target location;

computing a focal point location about said identified remote target location;

computing beam parameters for said focal point location; and

generating at least two acoustic beam parameters whereby cavitation is generated at said focal point location.